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Subject:	EPA request for ATSDR review Air monitoring and water/air sampling (3 June)
Date:	06/04/2010 03:39 PM

ATSDR Reviewed the MS Canyon Data Packaged Transmitted on June 3, 2010 for Air Sampling/Monitoring and Water Sampling.

In Region 6 at the Mobile, AL sites (Dauphin Island, AL, Orange Beach, AL, Gulf Breeze, FL, and Pascagoula, MS) hydrogen sulfide concentrations were above the odor threshold throughout the day on 6/2 and the morning of 6/3. Sulfur dioxide levels were elevated slight above comparison values at the Mobile, AL sites. Sulfur dioxide can occur naturally at levels between 1.5 ppb up to 170 ppb and is a by-product of fossil fuel combustion.

Stations V02, V03, and V05 also showed hydrogen sulfide concentrations above the odor threshold throughout the day on 6/2 and the morning of 6/3. Carbon monoxide was also slightly elevated at Station V02 on 6/2 at 1700. Stations V03 showed a consistent slightly elevated level of VOCs throughout the day on 6/2 until 0800 on 6/3. This could have been due to heavy river traffic throughout the day. Station V05 also showed slightly elevated VOC levels at 0900 on 6/2 and 1000 on 6/3.

Stations WAMS, GPMS, FAAL, PEFL have shown consistent readings at the 10-5 and 10-6 lifetime cancer risk range for benzene, carbon tetrachloride, and chloroform. Any significant findings above this risk range will be noted and further evaluated. Acetaldehyde was detected at 10-5 lifetime cancer risk along with acrylonitrile at the 10-6 lifetime cancer risk at Station WAMS. Acetaldehyde is a resultant of combustion, such as automotive exhaust and tobacco smoke. Acrylonitrile is a synthetic substance. Neither would be associated with the oil spill.

Methylene chloride levels were slightly elevated at Stations GPMS. Methylene chloride can occur naturally at 1 ppb in urban areas up to 11 ppb in hazardous waste sites according to the ATSDR Toxicological Profile for Methylene Chloride.

Several metals (calcium, magnesium, potassium, and sodium) exceeded our incident specific comparison values, as did chrysene which is a polycyclic aromatic hydrocarbon. The concentrations of metals were in the 10-5 lifetime cancer range. All of the samples were from locations either in salt water or areas subject to salt water intrusion or wharf areas. The heavy metals exceedances are consistent with what would be expected from sea water or usage of pressure treated lumber for wharf construction. Based on the locations, it is unlikely that anyone would be using this water as a drinking water source and the concentrations are not sufficient to pose a threat under the expected circumstances. The exceedance of chrysene is consistent with what would be expected from usage of pressure treated lumber for wharf construction and is only slightly elevated above our CV's and would not be expected to pose any threat to human health due to the limited or no contact of the surface water involved.

ATSDR does not anticipate any increased hazard to human health related to crude oil based on this data.

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